REMARKS

This is in response to the <u>Office Action</u> re-mailed on October 30, 2002. Applicant respectfully requests the Examiner to reconsider the present application.

I.   ALLOWABLE CLAIMS 18 AND 19

In the <u>Office Action</u>, Applicant's Claims 18 and 19 were indicated to be allowable if amended to be in independent form including all the limitations of their respective base claim and any intervening claims. Applicant gratefully acknowledges the indicated allowability of Claims 18 and 19.

II.   RESTRICTION

The <u>Office Action</u> included a confirmation of a restriction and election that had been previously discussed by telephone by the Examiner and the undersigned. Applicant confirms the election of the claims of Group II, namely Claims 8-23. With this response, Applicant has cancelled non-elected Claims 1-7. The cancellation of non-elected Claims 1-7 is made without prejudice to the patentability of these claims, which Applicant intends to file in a divisional application.

III.   CLAIM OBJECTION UNDER 37 C.F.R. § 1.75(c)

In the <u>Office Action</u>, an objection was made to Applicant's Claim 14 for being in improper dependent form. In the <u>Office Action</u>, the Examiner included a suggestion for amending Claim 14. The Examiner's suggestion for amending Claim 14 is acknowledged with appreciation. Applicant has amended Claim 14 to include the Examiner's suggestion.

IV.   CLAIM REJECTIONS UNDER 35 U.S.C. § 102

In the <u>Office Action</u>, Applicant's Claims 8-10, 14-17 and 20-23 were rejected as anticipated by U.S. Pat. No. 6,400,690 ("Liu"). Applicant respectfully submits that these claims are allowable over Liu. Accordingly, Applicant traverses the rejection and

requests that the Examiner reconsider and withdraw the rejection. The reasons why Applicant's Claims 8-10, 14-17 and 20-23 distinguish Liu are explained below.

A. Applicant's disclosed subject matter

The present application discloses methods for an improved navigation system. The navigation system is of the type in which end users obtain some or all their navigation-related services or geographic data over a wireless data communications system from a remotely-located navigation services server. With this type of navigation system, there are geographic areas in which the navigation-related services or geographic data are available wirelessly and other geographic areas in which the navigation-related services or geographic data are not available wirelessly. According to an embodiment disclosed in the present application, a geographic database includes wireless coverage information that indicates the geographic areas in which the navigation-related services or geographic data are available wirelessly or the geographic areas in which the navigation-related services and geographic data are not available wirelessly. The present application discloses ways to use the wireless coverage information to reduce inconveniences caused by gaps between geographic areas in which navigation-related services or geographic data are available.

B. The applied prior art references
(1) Liu

Liu discloses a method for forming a map that indicates areas in which wireless *communications* coverage (e.g., cell phone coverage) exist (Liu: column 1, lines 6-12). According to Liu, individual users (e.g., trucks, taxicabs, government service vehicles, customers) have GPS units or other positioning devices (Liu: column 2, lines 14-18 and column 3, lines 1-10). The individual users also have equipment (114 in Figure 1) that measures the signal strength of a cell phone signal (Liu: column 3, lines 11-16). Using the positioning equipment and the equipment that measures cell phone signal strength, the end user's system updates a local wireless coverage map (Liu: column 3, lines 11-15). The local wireless coverage map developed by a single user may be shared with a server and with other users (Liu: column 5, line 59-column 6, line 12). According to Liu, the

wireless coverage map may be used to guide end users to sites of superior communications reliability, warn mobile users when they are out of a service area or about to leave a service area, and so on (Liu: column 2, lines 25-32).

(2)   Pu

Pu relates to a navigation system in which routes are calculated on a centralized server and data that indicate the routes are transmitted to end users' navigation systems (Pu: column 7, lines 50-53 and column 7, lines 45-46). According to Pu, the routes are described using *"natural language"* (Pu: column 7, line 60-column 8, line 39).

C.   General differences between Applicant's disclosed subject matter and the applied prior art references

As stated above, the present application discloses methods that address the fact that wireless navigation services (or geographic data) are unavailable in certain geographic areas. Pu has no disclosure that relates to this subject. Therefore, Pu is not relevant to this aspect of Applicant's disclosed subject matter.

Liu discloses a system for identifying the wireless coverage areas of *cell phones* (or other communications devices). Lu has *no* disclosure relating to identifying the geographic areas in which wireless *navigation services* are available or not available. Areas of cell phone availability (as taught by Liu) are not the same as areas of wireless navigation services availability (as disclosed by Applicant). A person may be able to use his/her cell phone in an area in which there is no wireless navigation services. Likewise, it is possible that a person may be able to get wireless navigation services in an area, but be unable to get cell phone reception.

The position that Liu fails to disclose the identification of geographic areas of wireless navigation services availability (or unavailability) is confirmed by the fact that Liu discloses that end users have navigation systems (102 in Figure 1 of Liu) in their vehicles that calculate routes and provide other navigation-related functions using street coverage maps located on storage devices 116 located *in* their vehicles (Liu: column 4, lines 37-54). Because Liu discloses that end users have their own street coverage map data stored in their vehicles, there is no need for these end users to obtain navigation-services wirelessly from a remote navigation server.

The general differences that distinguish Applicant's disclosed embodiments from the applied references are helpful for understanding and appreciating the differences between Applicant's specific claims and these references. The ways in which Applicant's claims distinguish the applied references are explained below.

D.   Specific claims

<u>Claim 8</u>

Applicant's independent Claim 8 relates to a method of operation for an end user's computing device that provides navigation-related services. Applicant's Claim 8 recites two steps. In a first step, Applicant's Claim 8 recites *"establishing a wireless communications link"* between the *"end user's computing device"* and a *"remotely located navigation services provider."* In a second step, Applicant's Claim 8 recites *"obtaining wireless navigation services coverage data"* from the *"remotely located navigation services provider."* Applicant's Claim 8 states that the *"wireless navigation services coverage data"* indicate *"areas"* where *"navigation-related data"* from the *"navigation services provider"* are *"unavailable wirelessly."*

Applicant's independent Claim 8 is not anticipated by Liu because Liu does not disclose *"obtaining"* *"wireless navigation services coverage data"* that indicate *"areas"* where *"navigation-related data"* from the *"navigation services provider"* are *"unavailable wirelessly."* Instead, Liu discloses acquiring and transmitting wireless coverage area information for communications devices, such as cellular phones. Wireless coverage area information for communications devices as disclosed by Liu is not the same as *"wireless navigation services coverage data"* that indicate *"areas"* where *"navigation-related data"* from a *"navigation services provider"* are available, as recited in Applicant's Claim 8. At least for this reason, Applicant's Claim 8 is not anticipated by Liu. Accordingly, Applicant requests that the rejection of Claim 8 be withdrawn.

<u>Claim 9</u>

Applicant's Claim 9 is an independent claim that is similar to Applicant's Claim 8, except that Claim 9 recites that the *"wireless navigation services coverage*

data" from the *"remotely located navigation services provider"* indicate *"areas"* where *"navigation-related data"* from the *"navigation services provider"* are *"available wirelessly"* instead of *"unavailable wirelessly."* Applicant's Claim 9 is not anticipated by Liu for similar reasons as explained in connection with Claim 8.

Claims 10 and 14-17

Applicant's Claims 10 and 14-17 are dependent claims that depend directly or indirectly from independent base Claim 8 or 9. Claims 10 and 14-17 are not anticipated by Liu at least for the same reasons as their respective base claims. In addition, Claims 10 and 14-17 include additional limitations that are neither disclosed nor suggested by Liu.

Claim 20

Applicant's independent Claim 20 relates to providing navigation-related services. Applicant's Claim 20 recites a first step of *"establishing a wireless communications link"* between a *"remotely located navigation services provider"* and a *"computing device"* while the *"computing device"* is located in a *"first area"* where *"navigation-related data are available wirelessly"* from the *"remotely located navigation services provider."* Applicant's Claim 20 also recites the step of *"downloading data"* for a *"second area"* located outside the *"first area"* prior to leaving the *"first area."* According to Claim 20, the *"navigation-related data"* are *"not available wirelessly"* in the *"second area."*

Applicant's Claim 20 is not anticipated by Liu because Liu does not disclose anything about *"areas"* in which *"navigation-related data"* are available wirelessly or *"not available wirelessly."* Liu also does not disclose the step of *"downloading"* data for a *"second area"* (in which *"navigation-related data"* are *"not available wirelessly")* while still in the *"first area"* (in which such data are available). Accordingly, for either of these reasons, Applicant's Claim 20 is not anticipated by Liu.

<u>Claims 21-23</u>

Applicant's Claims 21-23 are dependent claims that depend from independent base Claim 20. Claims 21-23 are not anticipated by Liu at least for the same reasons as Claim 20. In addition, Claims 21-23 include additional limitations that are neither disclosed nor suggested by Liu.

V. CLAIM REJECTIONS UNDER 35 U.S.C. § 103

In the <u>Office Action</u> re-mailed October 30, 2002, Applicant's dependent Claims 11-13 were rejected as obvious over the combination of Liu and U.S. Pat. No. 6,292,743 ("Pu"). Applicant traverses this rejection on the grounds that all the limitations of Claims 11-13 are not disclosed by the combination of Liu and Pu.

Applicant's Claims 11-13 are dependent claims that depend indirectly from independent base Claim 8 or 9 and accordingly Applicant's Claims 11-13 are deemed to include all the limitations of these base claims. As explained above, Applicant's Claims 8 and 9 distinguish Liu because Liu does not disclose *"obtaining" "wireless navigation services coverage data"* that indicate *"areas"* where *"navigation-related data"* from a *"navigation services provider"* are *"unavailable wirelessly"* or *"available wirelessly."* With respect to Pu, Pu does not have any disclosure about *"obtaining" "wireless navigation services coverage data"* that indicate *"areas"* where *"navigation-related data"* from the *"navigation services provider"* are *"unavailable wirelessly"* or *"available wirelessly."* Accordingly, even if Liu and Pu were combined, the resultant combination would not disclose this missing limitation. Therefore, all the limitations of Applicant's Claims 11-13 are not disclosed by Liu and Pu and thus Applicant's Claims 11-13 are not obvious over this combination of references.

VI. FOURTH INFORMATION DISCLOSURE STATEMENT

Included with this response is a <u>FOURTH INFORMATION DISCLOSURE STATEMENT</u> that includes one reference. Applicant requests that the Examiner review this information disclosure statement. The Examiner is requested to indicate that the reference contained in this information disclosure statement has been considered in the

present application by initialing the enclosed form PTO-1449 and returning a copy of the form PTO-1449 to Applicant. The Examiner's attention to this matter is appreciated.

Enclosed is an authorization for payment of the fee associated with consideration of this new information disclosure statement.
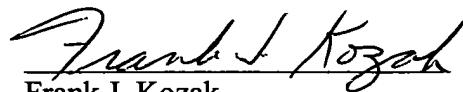
VII. EXTENSION OF TIME

The <u>Office Action</u> that this response addresses indicates that it was re-mailed on October 30, 2002. This response is being mailed on January 30, 2003. Therefore, this response is being filed within the three month shortened statutory period for reply so that no extension of time for filing this response is necessary. If for any reason, this response is deemed not to be timely filed, Applicant petitions for an extension of time for filing this response, pursuant to 37 C.F.R. § 1.136(a). The Commissioner has been authorized to charge any fees in the present application to Deposit Account No. 50 0728.

VIII. CONCLUSION

All the issues in the <u>Office Action</u> dated October 30, 2002 have been addressed. Applicant submits that the present application is in condition for allowance. If any issues remain, the Examiner is invited to call the undersigned.

Respectfully submitted,

Frank J. Kozak
Reg. No. 32,908
Chief Patent Counsel

NAVIGATION TECHNOLOGIES CORPORATION
Suite 900
222 Merchandise Mart Plaza Drive
Chicago, IL 60654
(312) 894-7000 x7371

MARKED-UP VERSIONS

IN THE CLAIMS (marked-up versions):

Please cancel Claims 1-7, without prejudice.

Please amend Claims 8-10, 14 and 15, as indicated.

1   8.   (Amended)   A method of operation for an end user's computing device

2   that provides navigation-related services to the end user, the method comprising:

3   with the end user's computing device, establishing a wireless communications

4   link with a remotely located navigation services provider; and

5   obtaining wireless navigation services coverage data from said remotely located

6   navigation services provider, wherein said wireless navigation services coverage data

7   indicate areas in which navigation-related data from the navigation services provider are

8   unavailable wirelessly.

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1   9.   (Amended)   A method of operation for an end user's computing device

2   that provides navigation-related services to the end user, the method comprising:

3   with the end user's computing device, establishing a wireless communications

4   link with a remotely located navigation services provider; and

5   obtaining wireless navigation services coverage data from said remotely located

6   navigation services provider, wherein said wireless navigation services coverage data

7   indicate areas in which navigation-related data from the navigation services provider are

8   available wirelessly.

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1   10.   (Amended)   The method of Claim 8 or 9 further comprising:

2   using the wireless navigation services coverage data to indicate on a display

3   screen of said end user's computing device areas in which navigation-related data from

4   the navigation services provider are available wirelessly.

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1   14.   (Amended)   The method of Claim 8 or 9 further comprising:

2   using the wireless <u>navigation services</u> coverage data to indicate on a display

3   screen of said end user's computing device areas in which navigation-related data from

4   the navigation services provider are [available] <u>unavailable</u> wirelessly.

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1   15.   (Amended)   The method of Claim 8 or 9 further comprising:

2   using the wireless <u>navigation services</u> coverage data to provide a warning that the

3   end user is leaving an area in which navigation-related services are available wirelessly.

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